

Section 0-6: Linear Inequalities

By the end of this lesson, you should be able to answer:

- How do you use Algebra to solve linear inequalities?

When solving linear inequalities, we are still working at getting the variable isolated. However, instead of having equal signs, we work with the inequality signs:

Again, we will do the opposite of the operations that are being applied. If you multiply or divide by a negative, you must flip the sign. Once you have found a solution, check it to make sure it works. The solution will be written as a solution set such as $\{x \mid x \leq 3\}$.

Example 1: Solve.

a. $x + 7 < 4$

b. $-2a + 12 \geq 32$

c. $18t > 63$

d. $-\frac{f}{7} \leq 13$

e. $\frac{3}{4}k + 9 = 45$

f. $3g - 24 = 9g + 12$

Problem Set:

"Opportunity is missed by most people because it is dressed in overalls and looks like work." - Thomas A. Edison